



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 17 2011

MEMORANDUM

SUBJECT: Regulating Natural Gas Drilling in the Marcellus Shale under the NPDES Program

FROM: James A. Hanlon, Director
Office of Wastewater Management

TO: Water Division Directors, Regions 1 – 10

The purpose of this memorandum, and the attached frequently asked questions (FAQs), is to provide you with information to assist in outreach concerning wastewater issues resulting from shale gas extraction. Disposal of Hydraulic fracturing flowback water (HFFW) from shale gas extraction has become a challenging issue that has resulted in uncertainty about disposal options and potential water quality impairments. Underground injection is used for disposal of HFFW in much of the country; however, there have been an increased number of requests to discharge the wastewater under NPDES permits in areas where few disposal wells exist. Development of NPDES permit conditions to address HFFW is challenging for State and Regional permitting authorities. The wastewater contains high concentrations of total dissolved solids that are difficult to treat and are not well addressed by current Effluent Limitations Guidelines or Water Quality Standards.

The attached FAQ document describes shale gas production, current discharge options under the NPDES program, and treatment and water quality issues associated with HFFW. The issues associated with Marcellus Shale extraction have become prevalent in West Virginia, Pennsylvania, and New York. However, since shale formations that are likely to produce natural gas exist throughout much of the country, there is a potential for these extraction and waste disposal issues to affect most EPA Regions.

If you have questions concerning this memorandum or the attached FAQ document or have additional questions that may be appropriate for national attention, please contact Deborah Nagle, Acting Director of the Water Permits Division, at 202-564-1185 or nagle.deborah@epa.gov or have your staff contact Scott Wilson of the Industrial Permit Branch at 202-564-6087 or wilson.js@epa.gov.

cc: NPDES Branch Chiefs Regions 1 – 10

Attachment